

## STUDY PERFORMANCE REPORT

State: Michigan

Project No.: F-81-R-16

Study No.: 230462

Title: Charter boat effort and harvest from the Michigan waters of the Great Lakes

Period Covered: October 1, 2014 to September 30, 2015

**Study Objectives:** To obtain annual charter fishing effort, harvest, and harvest rates of the major sport fish in the Michigan waters of the Great Lakes.

**Summary:** In March 2015, Michigan Department of Natural Resources (DNR) Charlevoix Fisheries Research Station (CFRS) personnel mailed 2015 charter fishing reporting packets to all known charter fishing operators who possessed a license to fish the Michigan waters of the Great Lakes and their major tributaries. Charter operators who had previously used the charter fishing online reporting system were sent reporting information via email. The charter fishing reporting packets included Charter Boat Daily Catch Report forms, instructions on how to complete and mail the forms, self-addressed return envelopes, and grid maps of the Great Lakes. State of Michigan Public Act 451 (Part 445) of 1994 requires all charter operators to record their daily fishing effort and catch and report their charter fishing activity to the DNR on a monthly basis. During the 2014 and 2015 data collection seasons, CFRS staff sent post card or certified mail notification to delinquent charter operators. By the end of the 2014 season, inclusive of assistance from MDNR Law Enforcement Division (LED) compliance-related activities through March 2015, 99% of all charter operators complied with state-mandated reporting requirements and data from 2014 is summarized in this report. Study results were disseminated via written report (as mandated by Public Act 451), with data summarized by Great Lake for fishing effort, catch, and harvest. Lake and port-specific results were posted on the DNR Charter Fishing Reporting Program website. Detailed harvest results were presented at meetings of charter organizations, citizen advisory groups, and other public and agency meetings. Similar data were collected during the 2015 season and will be summarized in the report for FY2016.

**Findings:** Jobs 1 through 6 were scheduled for 2014-15 and progress is reported below.

**Job 1. Survey design and coordination.**—Reporting of sport catch and fishing effort by the charter fishing industry is key fisheries information used directly in management decisions and is required under State of Michigan Public Act 451 (Part 445) of 1994. The survey design involves a census of charter operators identified from: (1) a list of operators who submitted catch reports the previous year; (2) review of the DNR LED list of individuals who applied for and/or received a certificate of inspection for a fishing vessel; and (3) individuals who applied for and/or received a Sport Trolling License. Charter reporting results in a continuous annual record of (1) charter fishing effort, and (2) number, type, and location of fish caught and harvested by charter anglers.

Modifications to the type of data and the methods used to collect data have been ongoing throughout the years of the study. CFRS personnel coordinated with Michigan Department of Technology, Management, and Budget (DTMB) in 2014 to implement modifications to select sections of the online reporting system for making the recording of data more intuitive to the end user and making some administrative features easier to use. These changes were implemented in December 2014 and January 2015.

CFRS personnel emphasized the importance of accurate reporting throughout the entire season via telephone conversations and written correspondence with charter operators. In addition, between October 1, 2014 and September 30, 2015, program personnel made presentations at Michigan Sea Grant workshops, Michigan Charter Boat Association meetings, fisheries workshops, citizen advisory meetings, and other public and agency meetings. These workshops and meetings provided an opportunity to: (1) share local and lake-wide fishing data; (2) educate charter operators about the importance of accurate and timely data reporting; (3) explain how to interpret results and how the data are used to address fisheries management concerns; (4) address questions and get feedback about the program; (5) promote and provide updates on the online reporting system; and (6) promote positive and trusting relationships between the public and the DNR.

**Job 2. Conduct surveys and process samples.**—In March 2015, CFRS personnel sent, by mail or email, instructions for 2015 charter reporting for 595 charter boats. Included within the mailings were Charter Boat Daily Catch Report forms, instructions on how to complete and mail the forms, self-addressed return envelopes, grid maps of the Great Lakes, and a notice that the online system is operational as an option for reporting. With these mailings, operators were reminded that they are required by law to complete and submit monthly reports to the DNR by the tenth day of the month following the month of fishing. Completed catch and activity forms received by the CFRS were logged and entered into an electronic database.

The online reporting system is another method available for charter captains to submit monthly reports. Those captains using the system at the end of the 2014 fishing season received an online instructional email in March 2015 in lieu of the mailing (described above). As of the end date of Fiscal Year 2015, 230 charter operators, reporting for 262 boats (approximately 42% of total operators and boats) had established an online reporting account.

**Job 3. Manage data - maintain databases.**—Data entry was completed by staff at the CFRS and online by charter operators. As charter report forms and online data arrived at the CFRS, personnel checked the forms and data for completeness. If incomplete, the forms were returned to charter operators with an explanation and request for the form to be corrected or completed. Errors from online reporting were reviewed and corrected using email or telephone. In some cases, Charlevoix personnel did not receive reports by the due date; therefore, delinquent notices were sent via postcard to charter operators who had not filed a report for a particular month (April through October). These notices were sent at least 30 days after an operator was delinquent with data for a given month. Postcard notices did not always elicit a response from operators. CFRS personnel sent a final notice letter to delinquent operators in December. Those operators with one delinquent report were sent a letter via first class mail and those with two or more delinquent reports were sent letters via certified mail. The letter notified the operator that if they did not respond in writing within 15 days, his or her name may be submitted to the DNR LED with a recommendation that they not be issued an inspection certificate for the following season. By March 2015, 99% of all charter operators had complied with the law for the 2014 reporting season.

CFRS staff continued close coordination with LED to identify reasons for noncompliance. This enabled CFRS staff to identify those operators who failed to submit reports for acceptable reasons (e.g. stopped fishing during the middle of the season), thereby reducing the percentage of noncompliant operators. Furthermore, the coordination effort enabled staff to identify and add operators who were absent from the database, improving the accuracy of effort and catch totals for the following year. In January 2015, CFRS provided LED a list of 24 delinquent reporters. Each operator on the list had not responded to the certified letter notification and had multiple months of reports missing for the 2014 reporting year. LED contacted each delinquent reporter on the list in person or via phone. While these enforcement actions took an additional two months of time, the result was increased compliance (99%) for the 2014 season.

**Job 4. Analyze data, modeling.**—Data analyses and summaries included operator reporting compliance; fishing effort, harvest, catch, harvest rate, and catch rate by lake, statistical district, and port; and rates of sea lamprey incidence on charter-caught fish. Data were incorporated into and complemented the analyses by other Fisheries Division staff, university collaborators, and multi-agency working groups.

In 2014, a total of 64,956 charter anglers participated in 16,150 excursions on the Michigan waters of lakes Michigan, Huron, Erie, Superior, and the St. Clair system (including the major tributaries), and spent 366,612 angler hours fishing. When compared to 2013, excursions increased 3%, anglers increased 3%, and angler hours increased about 2%. Charter operators reported 152,254 fish harvested from the Michigan waters of the Great Lakes and select tributaries in 2014. The most numerous species in the 2014 harvest was Chinook Salmon *Oncorhynchus tshawytscha* (38,118), followed by Lake Trout *Salvelinus namaycush* (37,687), Walleye *Sander vitreus* (25,642), Yellow Perch *Perca flavescens* (20,746), Rainbow Trout *Oncorhynchus mykiss* (13,961), Coho Salmon *Oncorhynchus kisutch* (8,679), Smallmouth Bass *Micropterus dolomieu* (2,412), and Brown Trout *Salmo trutta* (894). Relative to 2013, 2014 Chinook Salmon harvest numbers increased 1%. Harvest increased for Lake Trout, Walleye, Rainbow Trout, Smallmouth Bass, and Brown Trout, and decreased for Coho Salmon and Yellow Perch. In 2014, Sea Lamprey incidence on Chinook Salmon decreased for lakes Michigan and Huron, compared to that observed in 2013. Sea Lamprey occurrence on Lake Trout increased on Lake Superior, but decreased on lakes Michigan and Huron.

**Job 5. Write annual performance report.**—This annual progress report was prepared. In addition, a project summary was completed (Attachment 1).

**Job 6. Write other reports.**—Additional data and information is summarized in the annual report to charter operators:

Wesander, D. L., and D. F. Clapp. 2015. Charter boat catch and effort from the Michigan waters of the Great Lakes, 2014.

This annual report is available on the DNR Fisheries Division web site along with summary tables for individual ports at [http://www.michigan.gov/dnr/0,4570,7-153-10364\\_52259\\_47568---,00.html](http://www.michigan.gov/dnr/0,4570,7-153-10364_52259_47568---,00.html).

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**Dated:** September 30, 2015

## Charter Boat Catch and Effort from the Michigan waters of the Great Lakes

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### *Background*

Charter fishing data are used by Fisheries Division to help evaluate fish population trends throughout Michigan's Great Lakes waters. Reporting of sport catch and fishing effort by the charter fishing industry is required under Public Act 451 (Part 445) of 1994 and is commonly known as the Charter Fishing Reporting Program. The charter fishing industry provides Michigan with significant economic benefits to coastal communities including gross sales of at least \$14.9 million and 343,845 labor hours in 2009 (O'Keefe and Miller 2011; Michigan Sea Grant).

Michigan's charter boat industry increased from 250 operations in 1979 to nearly 900 in 1989. During the 1990s and through the early 2000s, the number of charter boats used for sport fishing excursions on Michigan's Great Lakes waters declined to approximately 500. During a charter fishing season, new charter boats may enter into the charter business while some others will depart; at present, there are 550-600 charter boats fishing Michigan waters annually (Photo 1).

The Charter Fishing Reporting Program (administered by Charlevoix Fisheries Research Station staff) collects monthly charter fishing activity reports to summarize annual charter fishing effort and charter catch and harvest of Coho Salmon, Chinook Salmon, Rainbow Trout (steelhead), Brown Trout, Lake Trout, Yellow Perch, Walleye, Smallmouth Bass, and Muskellunge. The survey design involves a census of all Michigan charter operators and a charter operator must fill out a monthly report for each boat and each lake fished. The report provides information on the lake fished, port of origin, area where a majority of the fishing occurred, hours fished, total number of anglers, numbers harvested and released of major fish species, and number of sea lamprey seen attached to Chinook Salmon and Lake Trout.



Photo 1. Charter boats at Chinook Pier in Grand Haven.

Data is summarized annually to describe trends in fishing effort and catch of major Great Lakes sportfish. Fisheries Division staff use this data in presentations at Michigan Sea Grant workshops, Michigan Charter Boat Association meetings, fisheries workshops, citizen advisory meetings, and other public and agency meetings. The data are key pieces of information used fisheries analyses by Fisheries Division staff, university collaborators, and multi-agency working groups.

### *Key study results*

- During the 2014 charter fishing year, there were 566 charter fishing boats operated by 508 businesses. There were 16,150 charter excursions during which 64,956 anglers spent 366,612 angler hours fishing on the Michigan waters of lakes Michigan, Huron, Erie, Superior, and the St. Clair system (including the major tributaries) (Figure 1).

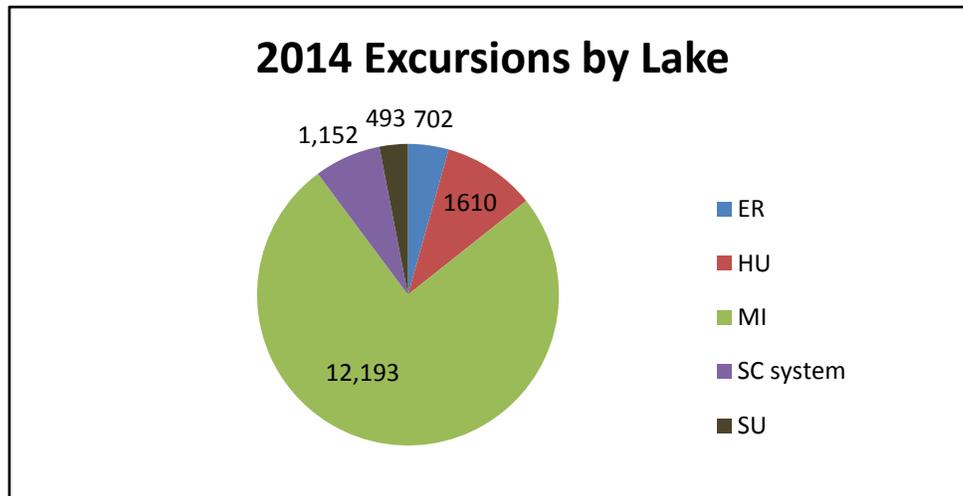


Figure 1. Numbers of charter boat trips by Great Lake.

- In 2014, charter operators reported a total 196,600 fish caught from the Michigan waters of the Great Lakes and select tributaries; 152,254 of those fish were harvested. The most numerous species in the harvest was Chinook Salmon (38,118), followed by Lake Trout (37,687), Walleye (25,642), Yellow Perch (20,746), Rainbow Trout (13,961), Coho Salmon (8,679), and Brown Trout (894). Smallmouth Bass and Muskellunge (“musky”) are popular species caught but not harvested; in addition to 2,412 Smallmouth Bass harvested, 18,473 were released. Charter anglers caught and released 1,333 musky.

#### *Study Details*

Complete study information and the annual charter boat harvest report are available at [http://www.michigan.gov/dnr/0,4570,7-153-10364\\_52259\\_47568---,00.html](http://www.michigan.gov/dnr/0,4570,7-153-10364_52259_47568---,00.html). Additional information is available at [http://www.michigan.gov/dnr/0,4570,7-153-10364\\_52259\\_19056-333302--,00.html](http://www.michigan.gov/dnr/0,4570,7-153-10364_52259_19056-333302--,00.html).